

Energy Efficiency

- Energy efficiency is one of the most important, cost-saving tools available to utilities to meet energy demand, defer generation investment, and reduce greenhouse gas and other emissions.
- The federal government creates incentives for energy efficiency through legislation, regulations, the tax code, and executive orders. The American Public Power Association (APPA) is generally supportive of federal efforts to encourage and support efficiency if they are cost-effective for consumers and have a reasonable payback period.
- Given that many energy efficiency improvements require changes in customer behavior that are beyond a utility's control, APPA believes Congress should continue to provide incentives, grants, rebates, and federal support for energy efficiency research and development to encourage, but not mandate, achieving greater energy efficiency.
- APPA urges the Department of Energy (DOE) to maintain current conservation standards for distribution transformers.

Background

Energy efficiency is the ability to maximize energy use via more efficient technologies throughout the electric utility system, as well as for electric customers to minimize their energy use via a variety of tools, technologies, and behaviors. Beginning with the Energy Policy and Conservation Act of 1975 (EPCA), Congress has passed several laws to promote energy efficiency standards for consumer products and equipment. Today, DOE's Building Technologies Office implements minimum energy conservation standards for more than sixty categories of products. The standard setting process, which includes the publication of a proposed rule in the *Federal Register*, allows for public and stakeholder feedback. DOE is required to set standards that are "technically feasible and economically justified." In 2007, Congress passed the Energy Independence and Security Act, which required DOE to create a schedule for the regular review and updating of efficiency standards. DOE, along with the Environmental Protection Agency (EPA), administers the voluntary ENERGY STAR program to identify products and building materials that go beyond federal efficiency standards.

While many of the efficiency standards set by DOE regulate consumer products, including ceiling fans, light bulbs, furnaces, and refrigerators, some may directly impact public power utilities, notably the efficiency standards for distribution transformers. Public power utilities, especially smaller ones, are often distribution-only asset owners and operators. A significant portion of their capital costs are for the transformers and wires that bring electricity to end-use customers. Thus, APPA believes that any energy efficiency regulations on distribution transformers must be economically justified to ensure that end-use customers recoup the costs for any increases in capital investments required through such regulations. Complex electric system equipment, like a distribution transformer, also requires an especially flexible and thoughtful approach when it comes to energy efficiency regulations as there are often situations where efficiency gains can come at the cost of broader optimal system operability.

In response to increasingly severe distribution transformer supply chain constraints, in May 2022, APPA and the National Rural Electric Cooperative Association sent a letter to DOE Secretary Jennifer Granholm urging her to temporarily waive the existing energy conservation standard for distribution transformers. Manufacturers could use the waiver at their discretion to increase output as much as possible until the immediate supply crisis has abated, thereby increasing the stock of transformers available to public power and other utilities. DOE subsequently denied the request.

APPA has filed public comments in response to DOE proposals to increase energy efficiency standards for distribution transformers and EPA ENERGY STAR proposals for distribution transformers. The comments supported the need for flexible and economically justified regulations. In December 2021, APPA responded to a DOE pre-filing for distribution transformers standards recommending that DOE delay implementation of a new energy efficiency regulation until the market for transformer materials returned to the projections used in the economic justification for the proposed regulation, citing current supply chain constraints for distribution transformers. In December 2022, DOE released its Notice of Proposed Rulemaking (NOPR) for new efficiency standards for all categories of distribution transformers that would use amorphous steel cores. In March 2023, APPA filed comments in response to the NOPR stating that the standard and analyses used in it do not comport with EPCA requirements and that the proposed standards would “worsen already critical distribution transformer supply shortages.”

Congressional Action

Several energy efficiency provisions were included in the Energy Act of 2020, which was enacted into law as part of the Consolidated Appropriations Act of 2021 (P.L. 116-260). Specifically, the law reauthorized the Weatherization Assistance Program (WAP), a DOE program that funds energy efficiency upgrades for low-income households. The Energy Act of 2020 also directed DOE to establish rebate programs to encourage the replacement of inefficient electric motors and transformers, which APPA supports.

The Infrastructure Investment and Jobs Act (P.L. 117-58) appropriated an additional \$2.5 billion for the WAP. It also appropriated \$550 million for the DOE Energy Efficiency and Conservation Block Grant program, which provides block grants to cities, states, and Indian tribes for energy efficiency and conservation projects. Additionally, the law will create a grant program for energy efficiency improvements and renewable energy deployment at public schools.

The Inflation Reduction Act (P.L. 117-169) extended or created several new tax incentives for residential energy efficiency improvements, including increasing the credit for residential energy efficiency home improvements, creating a rebate program for residential energy saving retrofits, and new grants for states to support energy efficiency training for contractors.

In response to increasing concerns about how the distribution transformer supply chain issue is impacting communities across the country, including delaying when electric utilities can connect new housing and businesses to the electric grid, as well as potentially slowing down electrification efforts, members of Congress in the House of Representatives and Senate from both parties this spring sent letters to Secretary Granholm requesting that DOE withdraw its proposed rule regarding new efficiency standards for distribution transformers. The House letter was led by Representative Diana Harshbarger (R-TN) and signed by 64 House members. Senator Bill Hagerty (R-TN) led a similar letter that was signed by 45 senators.

In June, Representative Richard Hudson (R-NC) and Senator John Barrasso (R-WY) introduced the Protecting America’s Distribution Transformer Supply Chain Act in the House and Senate. The bills would prohibit DOE from moving forward on its proposed energy efficiency standards to increase conservation standards for distribution transformers over the next five years. APPA supports both bills. Similar language to prevent DOE from moving forward on the NOPR was included in the Fiscal Year 2024 Energy and Water Development and Related Agencies Appropriations Bill, that was approved by the House Appropriations Committee’s Energy and Water Development and Related Agencies Subcommittee in June.

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The American Public Power Association is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We represent public power before the federal government and protect the interests of the more than 49 million people that public power utilities serve and the 96,000 people they employ.